Active Bacterial Core Surveillance (ABCs) Report
Emerging Infections Program Network
Methicillin-Resistant *Staphylococcus aureus*, 2008

ABCs Areas
California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia (8 county Atlanta area); **Maryland (1 county Baltimore area); Minnesota (2 metro Twin City counties);** New York (1 Rochester county); Oregon (3 county Portland area); Tennessee (1 Nashville county). Note the population under surveillance changed from 2007 (bold).

ABCs Population
The surveillance areas represent **19,086,261** persons.
Source: National Center for Health Statistics bridged-race vintage 2008 postcensal file.

ABCs Case Definition
Invasive methicillin-resistant *Staphylococcus aureus* (MRSA) disease: isolation of MRSA from a normally sterile site in a resident of the surveillance area in 2008. Cases of disease are classified into one of three epidemiologic classifications. A case is classified as hospital-onset (HO) if the MRSA infection was identified more than 2 days after hospital admission; as healthcare-associated community-onset (HACO) if the MRSA infection was identified 2 or fewer days after admission and had one of more of the following: 1) a history of hospitalization, surgery, dialysis or residence in a long term care facility in the previous year, or 2) the presence of a central vascular catheter. If none of the previously mentioned criteria are met, a case is classified as community-associated (CA)[†].

ABCs Methodology
ABCs personnel routinely contacted all microbiology laboratories serving acute care hospitals in their area to identify cases. Standardized case report forms that collect demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Selected isolates were collected and sent to CDC for routine testing including: antimicrobial susceptibility testing, toxin testing and *SCCmec* typing. Pulsed field gel electrophoresis (PFGE) was discontinued in 2008. An Inferred PFGE Algorithm based on molecular characteristics of an isolate has been validated for the use with isolates collected though this surveillance only (place holder for link). Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

Rates of invasive MRSA disease were calculated using population estimates for 2008. For national estimates of cases, race- and age-specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the 2008 U.S. population. Cases with unknown race were distributed by site based on reported race distribution for known cases.

Reported ABCs Profiles

Race	No.	(Rate[*])
White	3256	(24.5)
Black	2002	(60.1)
Other	222	(13.2)

Unknown race (n=771) distributed amongst known
*Cases per 100,000 population for ABCs areas

Class	MRSA No. (Rate*) Cases^	No. (Rate*) Deaths~	Inferred PFGE Type (N,%)[±] Tot N	USA100	USA300
HO	1276 (6.7)	304 (1.6)	247	177 (71.7)	48 (19.4)
HACO	3203 (16.8)	481 (2.5)	585	363 (62.1)	157 (26.8)
CA	929 (4.9)	91 (0.5)	151	46 (30.5)	103 (68.2)

*Cases per 100,000 population for ABCs areas
^n=151 ~n=20; could not be classified after chart review
[±]1351 isolates were eligible for testing up receipt to CDC, 1005 have Inferred PFGE algorithm, 13 will require direct PFGE

Syndrome	CA (n=929)	HACO (n=3203)	HO (n=1276)
Bloodstream Infection			
with other syndrome	512	2143	862
with no other syndrome	158	987	521
Pneumonia	155	459	232
Osteomyelitis	122	322	105
Endocarditis	94	195	45
Cellulitis	168	273	55
Skin abscess*	11	28	13

Note: Some cases had more than one syndrome.
*Category includes skin abscess, necrotizing fasciitis, gangrene, wounds

National Estimates of Invasive Disease
    Cases: 89,785 (29.53/100,000)
    Deaths: 15,249 (5.02/100,000)

[†]**Epidemiological Classification Definition Changes**
Previous documented MRSA colonization or infection is not a determinant in classifying patients, unlike previously published estimates which include such patients in the HACO category. HO cases are now defined based on reported calendar dates (i.e. greater than "48 hours") this also differs from previously published estimates. (JAMA, 2007 Oct 17; 298 (15): 1765-71)

Citation
Centers for Disease Control and Prevention. 2008. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Methicillin-Resistant *Staphylococcus aureus*, 2008.
Available via the Internet:
http://www.cdc.gov/abcs/reportsfindings/survreports/mrsa08.pdf

For more information, visit our web site:
http://www.cdc.gov/abcs